

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

1 1. (Original) A method for the automatic configuration of dynamic
2 database search forms comprising:
3 obtaining a database listing containing the uniform resource locators
4 (URLs) for each one of a plurality of databases to be configured;
5 accessing each one of said plurality of databases;
6 capturing a web page from the database associated with said URL;
7 locating data entry windows in said captured web page;
8 selecting a most probable data entry window of data entry windows for
9 passing queries to said database;
10 searching candidate responses for a next link indicating a next page
11 for additional results from said database in response to a query; and
12 writing an engine file describing the form layout and requirements
13 based upon said candidate responses and said next link.

1 2. (Original) The method of claim 1, wherein the step of accessing
2 each one of said plurality of databases further comprises accessing a
3 network and following a URL to a database on said network to be configured
4 for automatic completion of search forms.

1 3. (Original) The method of claim 1, wherein the step of locating data
2 entry windows in said captured web page further comprises:
3 saving information captured from the web page as a source version of
4 the web page;
5 filtering said source version into additional listings of URLs and text
6 portions;
7 examining said text portions for occurrences of a form label;

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

8 collecting each form tagged with the form label;
9 scoring each one of said forms to develop a numerical representation
10 of a likelihood that any one form is a query input form;
11 selecting one of said forms based on said form having a higher
12 numerical representation than any other of said forms;
13 storing an action string associated with said form, said action string
14 comprising a URL having at least a domain portion, a program portion, and
15 a query portion;
16 storing a get-post indicator associated with said database.

1 4. (Original) The method of claim 3, wherein the step of scoring each
2 one of said forms further comprises:
3 locating an action string associated with said data entry window;
4 obtaining a listing of bad action string;
5 comparing said action string with said listing of bad action strings and
6 determining if a portion of said action string matches any bad action strings
7 of said listing of bad action strings, setting said numerical representation to
8 zero and terminating said step of scoring if a portion of said action string
9 matches any of said bad action strings within a predefined window
10 determined by a binding factor;
11 setting a name matching metric;
12 setting an undesirable link text metric;
13 setting an undesirable value metric;
14 setting a desirable link text metric;
15 setting a null text metric;
16 computing a said numerical representation.

1 5. (Original) The method of claim 4, wherein the step of setting said
2 numerical representation further comprises using value of 0 for said binding
3 factor associated with said bad action string metric.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 6. (Currently Amended) The method of claim 4, wherein the step of
2 setting a name matching metric further comprises:
3 locating said data entry URL associated with the data entry window;
4 locating a page URL associated with the web page;
5 comparing a host name portion of said data entry URL with a host
6 name portion of said page URL;
7 setting a name matching metric to a presence predetermined value if
8 said host name portion of said data entry URL matches said host name
9 portion of said page URL;
10 setting a name matching metric to an absence predetermined value if
11 said host name portion of said data entry URL does not match said host
12 name portion of said page URL[[[;]]] .

1 7. (Original) The method of claim 6, wherein said steps of setting a
2 name matching metric further comprise:
3 using a value of 6 for said presence predetermined value associated
4 with said name matching metric;
5 using a value of 0 for said absence predetermined value associated
6 with said name matching metric.

1 8. (Original) The method of claim 4, wherein the step of setting an
2 undesirable link text metric further comprises:
3 locating said action string associated with said data entry window;
4 obtaining a listing of undesirable link texts;
5 comparing said action string with said listing of undesirable link text
6 and determining if a portion of said action string matches any undesirable
7 link texts of said listing of undesirable link texts, setting said numerical
8 representation to zero and terminating said step of scoring if a portion of
9 said action string matches any of said undesirable link texts within a
10 predefined window determined by a binding factor.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 9. (Original) The method of claim 8, wherein said steps of setting an
2 undesirable link metric further comprises using a value of 1 for said binding
3 factor associated with said undesirable link text.

1 10. (Original) The method of claim 5, wherein the step of setting an
2 undesirable value metric further comprises:
3 locating said action string associated with said data entry window;
4 obtaining a listing of undesirable values;
5 comparing said action string with said listing of undesirable value and
6 determining if a portion of said action string matches any undesirable values
7 of said listing of undesirable values, setting an undesirable value metric to
8 a presence predetermined value if a portion of said action string matches
9 any of said undesirable values within a predefined window determined by a
10 binding factor, and setting an undesirable value metric to an absence
11 predetermined value if a portion of said action string does not match an
12 undesirable value within a predefined window determined by a binding
13 factor.

1 11. (Original) The method of claim 10, further comprising:
2 using a value of 0 for said presence predetermined value associated
3 with said undesirable value metric;
4 using a value of 4 for said absence predetermined value associated
5 with said undesirable value metric;
6 using a value of 0 for said binding factor associated with said
7 undesirable value metric.

1 12. (Original) The method of claim 5, wherein the step of setting a
2 desirable link text metric further comprises:
3 locating said action string associated with said data entry window;
4 obtaining a listing of desirable link texts;
5 comparing said action string with said listing of desirable link text
6 and determining if a portion of said action string matches any desirable link

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

7 texts of said listing of desirable link texts, setting an desirable link text
8 metric to a presence predetermined value if a portion of said action string
9 matches any of said desirable link texts within a predefined window
10 determined by a binding factor, and setting an desirable link text metric to
11 an absence predetermined value if a portion of said action string does not
12 match an desirable link text within a predefined window determined by a
13 binding factor.

1 13. (Original) The method of claim 12, further comprising:
2 using a value of 4 for said presence predetermined value associated
3 with said desirable text metric;
4 using a value of 0 for said absence predetermined value associated
5 with said desirable text metric;
6 using a value of 2 for said binding factor associated with said
7 desirable text metric.

1 14. (Original) The method of claim 4, wherein the step of setting a
2 null text metric further comprises:
3 locating said action string associated with said data entry window;
4 checking said action string for an absence of associated text;
5 setting a null text metric to a presence predetermined value if no text
6 is associated with said form.

1 15. (Original) The method of claim 14, wherein said step of setting a
2 null text metric further comprises using a value of 2 for said null text
3 metric.

1 16. (Original) The method of claim 4, wherein said step of calculating
2 said numerical representation further comprises adjusting said numerical
3 representation by adding an integer value determined by the number of edit
4 boxes on said web page.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 17. (Original) The method of claim 3, wherein the step of scoring each
2 one of said forms further comprises:

3 locating an action string associated with said data entry window;
4 obtaining a listing of bad action strings;
5 comparing said action string with said listing of bad action strings and
6 determining if a portion of said action string matches any bad action string
7 of said listing of bad action strings, setting said numerical representation to
8 zero and terminating said step of scoring if said bad action string matches a
9 portion of said action string within a predefined window determined by a
10 binding factor;

11 wherein the step of setting said numerical representation further
12 comprises using value of 0 for said binding factor associated with said bad
13 action string metric;

14 locating a page URL associated with the web page;

15 comparing a host name portion of said data entry URL with a host
16 name portion of said page URL;

17 setting a name matching metric to a presence predetermined value if
18 said host name portion of said data entry URL matches said host name
19 portion of said page URL;

20 setting a name matching metric to an absence predetermined value if
21 said host name portion of said data entry URL does not match said host
22 name portion of said page URL;

23 said steps of setting a name matching metric further comprises:

24 using a value of 6 for said presence value associated with said
25 name matching metric;

26 using a value of 0 for said absence value associated with said
27 name matching metric;

28 obtaining a listing of undesirable link texts;

29 comparing said action string with said listing of undesirable link text
30 and determining if a portion of said action string matches any undesirable

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

31 link texts of said listing of undesirable link texts, setting said numerical
32 representation to zero and terminating said step of scoring if a portion of
33 said action string matches any of said undesirable link texts within a
34 predefined window determined by a binding factor;
35 using a value of 1 for said binding factor associated with said
36 undesirable link text;
37 obtaining a listing of undesirable values;
38 comparing said action string with said listing of undesirable value and
39 determining if a portion of said action string matches any undesirable values
40 of said listing of undesirable values, setting an undesirable value metric to
41 a presence predetermined value if a portion of said action string matches
42 any of said undesirable values within a predefined window determined by a
43 binding factor, and setting an undesirable value metric to an absence
44 predetermined value if a portion of said action string does not match an
45 undesirable value within a predefined window determined by a binding
46 factor;
47 using a value of 0 for said presence predetermined value associated
48 with said undesirable value metric;
49 using a value of 4 for said absence predetermined value associated
50 with said undesirable value metric;
51 using a value of 0 for said binding factor associated with said
52 undesirable value metric;
53 obtaining a listing of desirable link texts;
54 comparing said action string with said listing of desirable link text
55 and determining if a portion of said action string matches any desirable link
56 texts of said listing of desirable link texts, setting an desirable link text
57 metric to a presence predetermined value if a portion of said action string
58 matches any of said desirable link texts within a predefined window
59 determined by a binding factor, and setting an desirable link text metric to
60 an absence predetermined value if a portion of said action string does not
61 match an desirable link text within a predefined window determined by a

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

62 binding factor;
63 using a value of 4 for said presence predetermined value associated
64 with said desirable text metric;
65 using a value of 0 for said absence predetermined value associated
66 with said desirable text metric;
67 using a value of 2 for said binding factor associated with said
68 desirable text metric;
69 checking said action string for an absence of associated text;
70 setting a null text metric to a presence predetermined value if no text
71 is associated with said form;
72 using a value of 2 for said null text metric;
73 computing a numerical representation of the likelihood that said data
74 entry is a correct data entry window for passing queries to said database;
75 and
76 adjusting said numerical representation by adding an integer value
77 determined by the number of edit boxes on said web page.

1 18. (Currently Amended) The method of claim 1, further comprising:
2 determining a location of each one of a plurality of results locations
3 on a responsive web page where results from a query are posted;
4 determining a location of each one of a plurality of non-results items
5 on a responsive page are posted [[[;]]] .

1 19. (Original) The method of claim 18, further comprising:
2 selecting a plurality of validation queries;
3 submitting a first one of said plurality of validation queries to said
4 database using said action string;
5 capturing a first responsive web page returned in response to said first
6 one of said plurality of validation queries;
7 resubmitting said first one of said plurality of validation queries to
8 said database using said action string;
9 capturing a second responsive web page returned in response to said

App'n. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

10 second submission of said first one of said plurality of validation queries;
11 comparing said first responsive web page with said second responsive
12 web page, any differences between said first and second responsive web
13 page are extraneous responses and are ignored, storing any duplicates
14 between said first and second responsive web pages as candidate responses
15 to said validation query;
16 storing said candidate responses;
17 submitting a second one of said plurality of validation queries to said
18 database using said action string;
19 capturing a responsive web page returned in response to said second
20 validation query;
21 repeating submission of additional validation queries and capture of
22 additional responsive web pages until all validation queries have been
23 submitted;
24 comparing said first responsive web page to each of said additional
25 responsive web pages, ignoring any duplicates between said first responsive
26 and additional responsive web pages as extraneous responses, storing any
27 differences between said first responsive and said additional responsive web
28 pages as candidate responses to said validation query;
29 comparing each one of said responsive web pages to all other said
30 responsive web pages, ignoring any duplicates between said responsive web
31 pages as extraneous responses, storing any differences between said
32 responsive web pages as candidate responses to said validation query; and
33 searching candidate responses for a next link indicating a next page
34 for additional results from said database in response to said query.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 20. (Original) The method of claim 19, wherein said step of comparing
2 said first responsive web page with said second responsive web page further
3 comprises:

4 comparing each URL in said first responsive web page with each URL
5 in said second responsive web page;

6 capturing a location associated with every URL common between said
7 first responsive web page and said second responsive web page as a
8 potential location for results from a query;

9 capturing a location associated with every URL distinct between said
10 first responsive web page and said second responsive web page as a
11 potential location not associated with results from a query;

12 comparing each label associated with each URL in said first
13 responsive web page with each label associated with each URL in said
14 second responsive web page;

15 capturing a location, associated with every label associated with every
16 URL, which is common between said first responsive web page and said
17 second responsive web page as a potential location for results from a query;

18 capturing a location, associated with every label associated with every
19 URL, which is distinct between said first responsive web page and said
20 second responsive web page as a potential location not associated with
21 results from a query.

1 21. (Original) The method of claim 19, wherein said step of comparing
2 said first responsive web page with said additional responsive web page
3 further comprises:

4 comparing each URL in said first responsive web page with each URL
5 in said additional responsive web page;

6 capturing a location associated with every URL common between said
7 first responsive web page and said additional responsive web page as a
8 potential location for results from a query;

9 capturing a location associated with every URL distinct between said

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

10 first responsive web page and said additional responsive web page as a
11 potential location not associated with results from a query;
12 comparing each label associated with each URL in said first
13 responsive web page with each label associated with each URL in said
14 additional responsive web page;
15 capturing a location, associated with every label associated with every
16 URL, which is common between said first responsive web page and said
17 additional responsive web page as a potential location for results from a
18 query;
19 capturing a location, associated with every label associated with every
20 URL, which is distinct between said first responsive web page and said
21 additional responsive web page as a potential location not associated with
22 results from a query.

1 22. (Original) The method of claim 19, wherein said step of comparing
2 each one of said responsive web pages with all other said responsive web
3 pages further comprises:
4 comparing each URL in each one of said responsive web pages with
5 each URL in all other said responsive web pages;
6 capturing a location associated with every URL common between each
7 one of said responsive web pages and all other said responsive web pages as
8 a potential location for results from a query;
9 capturing a location associated with every URL distinct between each
10 one of said responsive web pages and all other said responsive web pages as
11 a potential location not associated with results from a query;
12 comparing each label associated with each URL in each one of said
13 responsive web pages with each label associated with each URL in all other
14 said responsive web pages;
15 capturing a location, associated with every label associated with every
16 URL, which is common between each one of said responsive web pages and
17 all other said responsive web pages as a potential location for results from a

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

18 query;
19 capturing a location, associated with every label associated with every
20 URL, which is distinct between each one of said responsive web pages and
21 all other said responsive web pages as a potential location not associated
22 with results from a query.

1 23. (Original) The method of claim 19, further comprising:
2 comparing each URL in said first responsive web page with each URL
3 in said second responsive web page;
4 capturing a location associated with every URL common between said
5 first responsive web page and said second responsive web page as a
6 potential location for results from a query;
7 capturing a location associated with every URL distinct between said
8 first responsive web page and said second responsive web page as a
9 potential location not associated with results from a query;
10 comparing each label associated with each URL in said first
11 responsive web page with each label associated with each URL in said
12 second responsive web page;
13 capturing a location, associated with every label associated with every
14 URL, which is common between said first responsive web page and said
15 second responsive web page as a potential location for results from a query;
16 capturing a location, associated with every label associated with every
17 URL, which is distinct between said first responsive web page and said
18 second responsive web page as a potential location not associated with
19 results from a query;
20 comparing each URL in said first responsive web page with each URL
21 in said additional responsive web page;
22 capturing a location associated with every URL common between said
23 first responsive web page and said additional responsive web page as a
24 potential location for results from a query;
25 capturing a location associated with every URL distinct between said

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

26 first responsive web page and said additional responsive web page as a
27 potential location not associated with results from a query;
28 comparing each label associated with each URL in said first
29 responsive web page with each label associated with each URL in said
30 additional responsive web page;
31 capturing a location, associated with every label associated with every
32 URL, which is common between said first responsive web page and said
33 additional responsive web page as a potential location for results from a
34 query;
35 capturing a location, associated with every label associated with every
36 URL, which is distinct between said first responsive web page and said
37 additional responsive web page as a potential location not associated with
38 results from a query;
39 comparing each URL in each one of said responsive web pages with
40 each URL in all other said responsive web pages;
41 capturing a location associated with every URL common between each
42 one of said responsive web pages and all other said responsive web pages as
43 a potential location for results from a query;
44 capturing a location associated with every URL distinct between each
45 one of said responsive web pages and all other said responsive web pages as
46 a potential location not associated with results from a query;
47 comparing each label associated with each URL in each one of said
48 responsive web pages with each label associated with each URL in all other
49 said responsive web pages;
50 capturing a location, associated with every label associated with every
51 URL, which is common between each one of said responsive web pages and
52 all other said responsive web pages as a potential location for results from a
53 query;
54 capturing a location, associated with every label associated with every
55 URL, which is distinct between each one of said responsive web pages and
56 all other said responsive web pages as a potential location not associated

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

57 with results from a query.

1 24. (Original) The method of claim 19, wherein said step of selecting
2 a plurality of validation queries further comprises:

3 selecting the term "home" as a first one of said plurality of validation
4 queries;

5 selecting the term "copyright" as a second one of said plurality of
6 validation queries;

7 selecting the term "web" as a third one of said plurality of validation
8 queries.

1 25. (Original) The method of claim 19, wherein said step of selecting
2 a plurality of validation queries further comprises:

3 selecting the term "home" as a first one of said plurality of validation
4 queries;

5 selecting the term "energy" as a second one of said plurality of
6 validation queries;

7 selecting the term "electricity" as a third one of said plurality of
8 validation queries.

1 26. (Original) The method of claim 19, wherein said step of searching
2 candidate responses for a next link further comprises:

3 obtaining a next term listing providing a plurality of labels commonly
4 associated with data entry windows used for accessing additional results
5 from a database associated with a user's query;

6 comparing each label associated with each URL in said first
7 responsive web page with each one of said plurality of labels in order
8 provided in said next term listing;

9 selecting a data entry window as a next link if said label associated
10 with said data entry window matches one of said plurality of labels provided
11 by said next link listing within a predetermined window defined by a
12 binding factor.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 27. (Original) The method of claim 26, wherein said step of selecting
2 a data entry window further comprises:

3 determining if a match has been made between said label associated
4 with said data entry window and one of said plurality of labels provided by
5 said next link listing;

6 comparing each label associated with each URL in a first one of said
7 additional responsive web pages associated with a second one of said
8 validation queries with each one of said plurality of labels in order provided
9 in said next term listing in no match has been made;

10 selecting a data entry window as a next link if said label associated
11 with said data entry window matches one of said plurality of labels provided
12 by said next link listing within a predetermined window defined by a
13 binding factor if no prior match has been made.

1 28. (Original) The method of claim 26, wherein said step of selecting
2 a data entry window further comprises using a value of approximately 1.5
3 for said binding factor.

1 29. (Original) The method of claim 3, wherein the step of scoring each
2 one of said forms further comprises:

3 locating an action string associated with said data entry window;

4 obtaining a listing of bad action string;

5 comparing said action string with said listing of bad action strings and
6 determining if a bad action string matches a portion of said action string;
7 setting said numerical representation to zero and terminating said step of
8 scoring if said bad action string matches a portion of said action string
9 within a predefined window determined by a binding factor;

10 using a value of 0 for said binding factor associated with said bad
11 action string metric;

12 locating said data entry URL associated with the data entry window;

13 locating a page URL associated with the web page;

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

14 comparing a host name portion of said data entry URL with a host
15 name portion of said page URL;
16 setting a name matching metric to a presence predetermined value if
17 said host name portion of said data entry URL matches said host name
18 portion of said page URL;
19 setting a name matching metric to an absence predetermined value if
20 said host name portion of said data entry URL does not match said host
21 name portion of said page URL;
22 using a value of 0 for said absence predetermined value associated
23 with said name matching metric;
24 obtaining a listing of undesirable link texts;
25 comparing said action string with said listing of undesirable link text
26 and determining if a portion of said action string matches any undesirable
27 link texts of said listing of undesirable link texts, setting said numerical
28 representation to zero and terminating said step of scoring if a portion of
29 said action string matches any of said undesirable link texts within a
30 predefined window determined by a binding factor;
31 using a value of 1 for said binding factor associated with said
32 undesirable link text;
33 obtaining a listing of undesirable values;
34 comparing said action string with said listing of undesirable value and
35 determining if a portion of said action string matches any undesirable values
36 of said listing of undesirable values, setting an undesirable value metric to
37 a presence predetermined value if a portion of said action string matches
38 any of said undesirable values within a predefined window determined by a
39 binding factor, and setting an undesirable value metric to an absence
40 predetermined value if a portion of said action string does not match an
41 undesirable value within a predefined window determined by a binding
42 factor;
43 using a value of 0 for said presence value associated with said
44 undesirable value metric;

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

45 using a value of 0 for said binding factor associated with said
46 undesirable value metric;
47 obtaining a listing of desirable link texts;
48 comparing said action string with said listing of desirable link text
49 and determining if a portion of said action string matches any desirable link
50 texts of said listing of desirable link texts, setting an desirable link text
51 metric to a presence predetermined value if a portion of said action string
52 matches any of said desirable link texts within a predefined window
53 determined by a binding factor, and setting an desirable link text metric to
54 an absence predetermined value if a portion of said action string does not
55 match an desirable link text within a predefined window determined by a
56 binding factor;
57 using a value of 0 for said absence predetermined value associated
58 with said desirable text metric;
59 using a value of 2 for said binding factor associated with said
60 desirable text metric;
61 checking said action string for an absence of associated text;
62 setting a null text metric to a presence predetermined value if no text
63 is associated with said form;
64 using values for said presence predetermined value associated with
65 said name matching metric, said absence predetermined value associated
66 with said undesirable value metric, said presence predetermined value
67 associated with said desirable text metric, and said null text metric such
68 that the relative weighting of each of said metrics is approximately 3:2:2:1
69 respectively; and
70 computing a said numerical representation.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 30. (Currently Amended) A system for the automatic configuration of
2 dynamic database search forms comprising:

3 a computer system having a storage means for facilitating the
4 retention and recall of dynamic database content, said computer system
5 having a communications means for performing bi-directional
6 communications between said computer system and a network;

7 a query input means for receiving a plurality of queries from a user
8 and transferring the plurality of queries to a plurality of databases;

9 an action string module interfaced to said computer system ~~for~~
10 ~~determining and configured to automatically determine~~ a format associated
11 with an entry page for a database from said entry page, said action string
12 module being ~~for determining~~ configured to automatically determine an
13 appropriate data entry window on said entry page for use in passing a query
14 to said database;

15 a results module interfaced to said computer system and said action
16 string module, said results module locating areas on a responsive page
17 returned by said database in response to said query where results are placed;

18 a next link module interface to each one of said computer system,
19 action string module, and results module, said next link module locating a
20 link associated with additional results provided by said database in response
21 to said query;

22 an engine file module interfaced to said computer system and every
23 other module for storing results produced by each module such that a
24 general format query is translatable into a database specific format allowing
25 a common query to be submitted to multiple databases each requiring
26 different formats.

1 31. (Original) The system of claim 30, further comprising a data
2 comparison portion providing user specific information to each of said
3 modules for facilitating analysis of said databases.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 32. (Currently Amended) The A system of claim 31, for the automatic
2 configuration of dynamic database search forms comprising:

3 a computer system having a storage means for facilitating the
4 retention and recall of dynamic database content, said computer system
5 having a communications means for performing bi-directional
6 communications between said computer system and a network;

7 a query input means for receiving a plurality of queries from a user
8 and transferring the plurality of queries to a plurality of databases;

9 an action string module interfaced to said computer system for
10 determining a format associated with an entry page for a database, said
11 action string module being for determining an appropriate data entry
12 window for use in passing a query to said database;

13 a results module interfaced to said computer system and said action
14 string module, said results module locating areas on a responsive page
15 returned by said database in response to said query where results are placed;

16 a next link module interface to each one of said computer system,
17 action string module, and results module, said next link module locating a
18 link associated with additional results provided by said database in response
19 to said query;

20 an engine file module interfaced to said computer system and every
21 other module for storing results produced by each module such that a
22 general format query is translatable into a database specific format allowing
23 a common query to be submitted to multiple databases each requiring
24 different formats;

25 a data comparison portion providing user specific information to each
26 of said modules for facilitating analysis of said databases;

27 wherein said data comparison portion further comprises:

28 a database listing providing a URL for each of said databases to
29 be analyzed;

30 a bad action string listing providing URLs for known databases
31 which are not to be included in the analysis of said databases;

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

32 a desirable text link listing providing a plurality of desirable
33 terms for use in analysis of said databases, a presence of any one of
34 said plurality of desirable terms increasing a score associated with a
35 data entry window on one of said responsive pages;
36 an undesirable text link listing providing a plurality of
37 undesirable terms for use in analysis of said databases, a presence of
38 any one of said plurality of undesirable terms setting a score
39 associated with a data entry window on one of said responsive pages to
40 0 and ending analysis of said data entry window; and
41 an undesirable value listing providing a plurality of undesirable
42 values for use in analysis of said databases, a presence of any one of
43 said plurality of undesirable values decreases a score associated with a
44 data entry window on one of said responsive pages.

1 33. (Original) The system of claim 31, wherein said data comparison
2 portion further comprises:

3 a next link listing providing said next link module with a plurality of
4 candidate terms for facilitating selection of a URL associated with a link to
5 additional responses provided by said database in response to said query.

1 34. (Original) A system for the automatic configuration of dynamic
2 database search forms comprising:

3 a computer system having a storage means for facilitating the
4 retention and recall of dynamic database content, said computer system
5 having a communications means for performing bi-directional
6 communications between said computer system and a network;

7 a query input means for receiving a plurality of queries from a user
8 and transferring the plurality of queries to a plurality of databases;

9 an action string module interfaced to said computer system for
10 determining a format associated with an entry page for a database, said
11 action string module being for determining an appropriate data entry
12 window for use in passing a query to said database;

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

13 a results module interfaced to said computer system and said action
14 string module, said results module locating areas on a responsive page
15 returned by said database in response to said query where results are placed;

16 a next link module interface to each one of said computer system,
17 action string module, and results module, said next link module locating a
18 link associated with additional results provided by said database in response
19 to said query;

20 an engine file module interfaced to said computer system and every
21 other module for storing results produced by each module such that a
22 general format query is translatable into a database specific format allowing
23 a common query to be submitted to multiple databases each requiring
24 different formats;

25 a database listing providing a URL for each of said databases to be
26 analyzed;

27 a bad action string listing providing URLs for known databases which
28 are not to be included in the analysis of said databases;

29 a desirable text link listing providing a plurality of desirable terms for
30 use in analysis of said databases, a presence of any one of said plurality of
31 desirable terms increases a score associated with a data entry window on
32 one of said responsive pages;

33 an undesirable text link listing providing a plurality of undesirable
34 terms for use in analysis of said databases, a presence of any one of said
35 plurality of undesirable terms sets a score associated with a data entry
36 window on one of said responsive pages to 0 and ending analysis of said
37 data entry window; and

38 an undesirable value listing providing a plurality of undesirable values
39 for use in analysis of said databases, a presence of any one of said plurality
40 of undesirable values decreases a score associated with a data entry window
41 on one of said responsive pages;

42 a next link listing providing said next link module with a plurality of
43 candidate terms for facilitating selection of a URL associated with a link to

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

44 additional responses provided by said database in response to said query.

1 35. (New) A method for automatic configuration of dynamic search
2 forms for a database, said method comprising:
3 accessing a web page from a web site providing access to a database;
4 capturing said web page;
5 locating at least one data entry window in said captured web page;
6 determining a most probable data entry window of said at least one
7 data entry window for passing queries to said database;
8 storing an identification of said most probable data entry window in
9 association with an identification of said database for use in submitting
10 queries to said database.

1 36. (New) The method of claim 35, wherein said step of determining
2 said most probable data entry window includes:
3 submitting at least one query to said database using said most
4 probable data entry window; and
5 evaluating responses from said web site to said at least one query for
6 determining a likelihood that said most probable data entry window a proper
7 window for searching said database.

1 37. (New) The method of claim 35, further comprising:
2 searching candidate responses from said web site for a link indicating
3 a next page for additional results from said database in response to a query;
4 and
5 storing an identification of said link the next page for additional
6 results.

Appln. No. 09/911,435
Amendment dated May 16, 2005
Reply to Office Action mailed February 14, 2005

1 38. (New) The method of claim 35, wherein said web page includes a
2 plurality of data entry windows, and wherein said step of determining said
3 most probable data entry window includes selecting a most probable data
4 entry window, from said plurality of said data entry windows, for passing
5 queries to said database.

1 39. (New) The method of claim 35, wherein the step of capturing said
2 web page further comprises:
3 saving information captured from the web page as a source version of
4 the web page.

1 40. (New) The method of claim 39, wherein the step of locating said
2 at least one data entry window further comprises:
3 filtering said source version into listings of links and text portions;
4 examining said text portions for occurrences of a form label; and
5 collecting each form tagged with the form label.

1 41. (New) The method of claim 40, wherein the step of determining
2 said most probable data entry window further comprises:
3 scoring each one of said forms to develop a numerical representation
4 of a likelihood that any one form is a query input form; and
5 selecting one of said forms based on said form having a higher
6 numerical representation than any other of said forms.

1 42. (New) The method of claim 41, wherein the step of storing an
2 identification of said most probable data entry window further comprises:
3 storing an action string associated with said form, said action string
4 comprising a representation of a uniform resource locator (URL) link having
5 at least a domain portion, a program portion, and a query portion.